



# Flushing Bay & Creek, Borough of Queens, New York Ecosystem Restoration Study

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**U.S. ARMY CORPS OF ENGINEERS**

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## DESCRIPTION

The study area is an embayment of western Long Island Sound adjoining a portion of the northern coast of New York City, in the Borough of Queens. The primary concern is the southwest corner of the Bay next to La Guardia Airport where water quality is degraded. Odors emanating from this region are a serious public concern. The Flushing Bay Task Force has worked closely with Queens Borough President Helen Marshall, former Queens Borough President Claire Shulman, Assemblyman Jeffrey Aubry and Democratic Congressman Joseph Crowley for a solution. During numerous public sessions, the earthen dike in Flushing Bay has been targeted as the primary cause restricting tidal circulation in the Back Bay. Over the past century, however, the Bay's entire ecosystem has been degraded through fill activities, bulkheading, dredging, landfills, sewage and Combined Sewer Outfall [CSO] discharges.

**AUTHORIZATION:** A reconnaissance study was authorized by Resolution of the Committee on Public Works and Transportation of the United States House of Representatives adopted 28 September 1994 to determine the feasibility of improvements in the interest of water quality and other purposes. The existing Federal project consists of a three-mile long navigation channel, a maneuvering area, an anchorage basin, and an earthen dike which functions as a breakwater. The study was authorized to address the problems and needs of the area with a view toward improving water quality problems in the Bay through ecosystem restoration. By investigating engineering solutions to the poor bay hydrodynamics and tidal circulation, it is believed that ecosystem restoration can be effected, with the benefits being measurable as improvements in fish and wildlife habitat values.

**STATUS:** A reconnaissance report was completed in April 1996, which demonstrated a federal interest for further study at the feasibility level. It identified six measures in the interest of ecosystem restoration: [1] Tidal Wetlands Restoration; [2] Freshwater Wetlands Restoration; [3] Dredging; [4] Further Removal of the Earthen Dike; [5] Reorientation of the Federal Navigation Channel; and [6] Shoreline Bank Stabilization, Site Cleanup and Debris Removal. A Feasibility Study Cost-Sharing Agreement [FCSA] was executed between the Corps of Engineers, New York City Department of Environmental Protection [NYCDEP], and Port Authority of New York and New Jersey [PANYNJ] in September 1999. The 1999 FCSA study costs were estimated at approximately \$2,730,000 at a 50-50 cost share [Federal 50% and Non-Federal 50%].

A numerical hydrodynamic model was used to examine tidal current circulation patterns. A Flushing Bay hydrographic survey was completed in May 2000, while the Bay water quality sampling program and the tidal current and stage data-gathering program were completed in October 2000. Inter-tidal wetlands delineation was completed during summer 2000. Aerial photography was flown in April 2001. A preliminary formulation of alternatives report was prepared in 2003. Currently, the Corps, the NYCDEP and PANYNJ are pursuing recommendations for Flushing Creek, which are expected to be environmentally sustainable with the implementation of the NYCDEP abatement facility of the most influential sewage outfalls. Completion of the draft feasibility report and environmental impact statement and public review of said documents are dependent on receipt of Federal and non-Federal funds.

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